

IN THE SPECIFICATION

Please replace paragraph 0032 with the following rewritten paragraph:

Fig. 4 illustrates a monolithic, side pumped, passively Q-switched, solid-state laser 10 in accordance with an embodiment of this invention. The laser 10, while maintaining high performance, emphasizes cost reductions by using few parts and by configuring the laser 10 to enable manufacturing in large quantities and reduced cost. The basic laser architecture is intentionally made simple. The laser 10 includes a laser gain medium 12, such as Nd:YAG, which is bonded, either with an optical adhesive or through some other suitable bonding method, such as direct optical contact, to a passive Q-switch 14. The passive Q-switch is made of a saturable absorber material, such as Cr:YAG. This forms a monolithic block structure. The laser resonator 16 is formed by the end faces of the monolithic block structure, with the laser high reflector 18A deposited directly on the gain medium 12 and the output coupler 18B deposited directly on the Q-switch 14. The gain medium 12 is preferably side pumped on a pump face 12A by a pump source 20. Preferably, the pump source 20 is a laser diode ~~array~~array, however, other apparatus such as a flashlamp may be used.

Please replace paragraph 0038 with the following rewritten paragraph:

In Fig. 5B, the first and second structures 30, 32 are placed in optical contact along polished faces thereof to form a composite structure 34. The placing operation can be accomplished by a diffusion bonding process. Reference in this regard can be made, as examples, to U.S. Patent No.: 5,441,803, "Composites made from single crystal substances", H.E. Meissner; U.S. Patent No.: 5,846,638, "Composite optical and electro-optical devices", H.E. Meissner; and U.S. Patent No.: 5,852,622, "Solid state lasers with composite crystal or glass components", H.E. Meissner et al., or U.S. Patent No.: ~~6,548,176~~6,548,176, "Hydroxide-Catalyzed Bonding", D. Gwo.

Please replace paragraph 0044 with the following rewritten paragraph:

Fig. 5D shows some number, for example five, of the sub-structures 34 that are "blocked up" together for performing in parallel end polishing and end coating steps, if not already performed at the stage depicted in Fig. 5B. As examples, the ends 18A are made highly reflective at 1.064 microns, while the ends 18B are made partially reflective at 1.064 microns. It is also preferred at this time to polish the pump side 12A of the structures 34A, and to also deposit an anti-reflection (AR) coating. As an example, the AR coating is effective at a pump wavelength of 0.808 microns and can comprise a coating of MgF or it can comprise known types of oxide coatings. Multi-layered interference stack-type coatings can also be employed. Suitable deposition processes include, but need not be limited to, e-beam deposition and sputtering. The sub-structures 34A can then be separated and used for final construction of a plurality of the lasers 10.

Please replace paragraph 0046 with the following rewritten paragraph:

It can be noted that the laser 10 shown in Fig. 4 is considerably larger than a typical microchip laser [[[]]] which is typically on the order of about one millimeter in length, and which typically emits microjoule pulses having less than 1 ns pulsewidth, with peak powers in the range of 10's of kW. The laser 10 is also designed to be side-pumped, not end-pumped as is the typical microchip laser. One benefit of the larger size and the use of side pumping is that a higher pump power can be used, resulting in higher laser output power and greater pulse energies. Furthermore, the larger size means that the laser 10 can typically support more than one transverse or longitudinal mode, (i.e., the laser 10 may exhibit multi-mode operation), as opposed to the typical single mode operation of the significantly smaller microchip laser.